

# KEVIN BOR-KAE HWANG

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## OBJECTIVE

A software engineer with Database, Web-App, and general programming skills looking for full-time position, graduating April 2018

## EDUCATION

### University of Michigan

Sep. 2016-Present

MS in Electrical and Computer Engineering (Signal Processing and Machine Learning) (GPA: 3.8)

Ann Arbor, MI

- Expected Graduation: April 2018

- Courses: Operating Systems, Database Management Systems, Machine Learning, Self-Driving Car, Big Data System, Matrix Methods, Probability and Random Process

### National Tsing Hua University

Sep. 2011-Jun. 2015

BS in Electrical Engineering (Signal Processing) (GPA: 4.05/4.3, overall class ranking: 1/56)

Hsinchu, Taiwan

- Won the Academic Achievement Award (top 3 students in fall 2012)

- Courses: Digital Signal Processing, Operating Systems, Data Structures, Computer Architecture, Signals and Systems

## WORK EXPERIENCE

### Clinic, Inc.

May. 2017-Aug. 2017

Software Engineer, Finie for the Family back-end team

Ann Arbor, MI

- Built a monthly budget tracking feature for conversational AI assistant, allowing the user to manage their budget through voice commands
- Created a family assistant for managing budgets, shopping lists, and notifications using natural language processing
- Used Python for back-end logic computation; utilized Django framework to interact with MySQL database
- Designed a web-based chatbot interface with HTML, CSS, JS

## PROJECTS

### Front-End Web Design: Starkque

Feb. 2017-Present

- Started working on a web-app with log-in system, users can play games, post photos, and send messages; wrote with HTML, CSS, JS
- Implemented responsive web design for all size of device screens with Bootstrap
- Established back-end support with MySQL and PHP

### Multi-class AdaBoost Algorithm Comparison

Nov. 2016-Dec. 2016

- Programmed 3 different versions of the AdaBoost algorithm (M1, M2, SAMME) with Matlab
- Built a decision tree as weak learner for AdaBoost algorithms
- Investigated the pros and cons of AdaBoost algorithms; M2 is accurate for small dataset with few classes, SAMME is fast with large dataset

### 2D Indoor Positioning System in an Android Game App

Jan. 2014-Jan. 2015

- Developed an Android game app, demonstrate a player's movement in real-time, with 1s latency
- Implemented RSSI and INS as distance measurements, achieving a 20% accuracy improvement with a Kalman filter
- Awarded research funding for honorable recognition from National Science Council (NSC) in Taiwan

### Augmented Reality Implementation

Dec. 2014-Jan. 2015

- Implemented coordinate transformation from real world to virtual world using OpenCV
- Used a webcam to capture images and projected a moving 3D virtual character on those images

## SKILLS

**Languages:** Python, Ruby, Java, C/C++, Swift

**Databases:** SQL, Oracle SQL\*Plus, MySQL

**Web:** HTML, CSS, JavaScript (jQuery), Bootstrap, PHP

**Tools:** Git, MATLAB

## LEADERSHIP

### Prime Organizer, Graduate Student Association Activity Department

Nov. 2014-Jun. 2015

- Coordinated an Escape Room event; attracted over 200 participants and generated over \$1000 in revenue

### President, NTHU HSNU&ZS Alumni Association

Aug. 2012-Aug. 2013

- Elected as president by over 100 members and organized 12 activities annually aiming to enhance connections among over 200 alumni
- Organized 3 large events: summer camp, campus tour, Christmas carnival, over 200 participants in each event

### Delegate, 24th World Model United Nations, Seoul, Korea

Mar. 2015

- Competed on behalf of my school against 100 other candidates, and collaboratively produced a resolution on water sanitation issues in Model United Nations ESCAP (Economic and Social Commission for Asia and the Pacific)